

25(1)

SOV/125-60-2-12/21

AUTHORS: Lisachev, N.T. and Slavutskiy, Yu. P.

TITLE: An Installation for the Automatic Welding of Equipment  
for Coke By-Product Plants

PERIODICAL: Avtomicheskaya svarka, 1960, Nr 2, pp 85-87 (USSR)

ABSTRACT: The new automatic welding installation described here was developed by the Slavyanskiy Plant for Coke By-Product Equipment. This plant produces gas pipelines, regenerators and other cylindrical work. Photographs 1 and 2 show this new installation. It permits the automatic welding of work from 600 to 3500-mm in diameter and from 1200 to 22,000-mm in length. The mobile part of the stand is in the form of a monorail crane with a mobile "balcony" which has ways for the "ADS-1000-2" welding tractor. Any other automotive welding head may be used. The installation also includes another, fixed "balcony" (Figure 2), on which the control stand is situated,

Card 1/2

SLAVUTSKIY, Yu.P.

Analyzing the transmission mechanism for the control of the lid and  
valve of the hydraulic lock of the standpipe for gas discharge. Koks  
i khim. no.7:53-55 '65. (MIRA 18:8)

1. Slavyanskiy zavod "Koksokhimmash".

SLAVVO, A.V.

DECEASED  
c' 1961

1962/  
5.

SEE ILC.

PHYSIOLOGY

SLAVYANINOVA, Ye.L.

Investigating the dispersibility and stability of resin emulsions  
obtained under the effect of ultrasonic waves. Lakokras.mat.i  
ikh prim. no.6:29-32 '62. (MIRA 16:1)  
(Emulsions--Testing)

SLAVYANOVA, Ye.L., inzh.

Heavy-duty insulation of low-voltage transformers. Vest. elek-  
troprom. 33 no.3:52-55 Mr '62. (MIRA 15:3)  
(Electric transformers)

L 62137-65

ACCESSION NR: AP5016945

UR/0303/65/000/003/0026/0027  
667.612.667.632:621.926

5

6

AUTHOR: Slavyaninova, Ye. L.; Okhrimenko, I.S.

TITLE: Effect of the nature and viscosity of certain resins on their emulsification in water by means of acoustic vibrations

SOURCE: Lakokrasochnye materialy i ikh primeneniye, no. 3, 1965, 26-27

TOPIC TAGS: emulsification, hydrodynamic vibration, dispersed system, resin viscosity, emulsion stability, varnish base

ABSTRACT: The effect of the nature and viscosity of the emulsified products on the particle size distribution and stability of emulsions of three resins was studied. The resins were: rosin glyceride modified with tung oil (varnish base 321-T), penta-phthalic resin modified with a melamine-formaldehyde resin (varnish base PFL-8v), and the base of organosilicon varnish K-47V. The emulsification was carried out with a hydrodynamic vibrator, and the emulsifiers were ammonia and the OP-10 wetting agent. The use of 321-T and PFL-8v increases the dispersity of the emulsion considerably. The dependence of the dispersity on the viscosity is most pronounced over a very narrow viscosity range when the vibrator is used; a mechanism is proposed for the dispersing

Card 1/2

L 62137-65

ACCESSION NR: AP5016945

effect of acoustic vibrations. The results lead to the conclusion that acoustic vibrations can be used for emulsifying resinous products, particularly those with a viscosity up to 100 poise. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, GC

NO REF Sov: 005

OTHER: 000

Card

2/2

SLAVYANOV, G.

United Nations.

Seventh session of the European Economic Commission of the U.N.O. Plan. kholz. no. 3. '52.

Monthly List of Russian Accessions, Library of Congress, September 1952, Unclassified.

SLAVYANOV, N. G.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 736 - I

BOOK

Author: SLAVYANOV, N. G.

Full Title: ELECTRIC ARC WELDING OF METALS

Transliterated Title: Elektricheskaya otlivka metallov

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House  
on Machine Building Literature

Date: 1954 (Reprinted from 1892 edition); No. pp.: 93; No. copies: 5,000

Editorial Staff: Model', B. I. - Technical Editor

PURPOSE: Republication of the original work of 1892 for historical  
interest and to acquaint technicians in the metalworking industry  
with the inventors' original observations on electric arc welding.

TEXT DATA

Coverage: The author-inventor describes his electric arc welding  
apparatus, including all the auxiliary attachments, and supplements  
his description with drawings and experimental data. He outlines  
the layout of an electric welding shop and its requirements. The  
transformation of white iron into gray cast iron, smelting of small  
metal pieces and the welding of copper tubing are discussed. A  
short biography of Slavyanov and brief comments on the book,  
particularly its terminology, are attached.

1/2

SLAVYANOV, V.

23400      Organolepticheskiy sposob kontrolyya kachestva moloka. Moloch.  
Prom-st', 1949, No. 7, c. 44-46.

SO: LETOPIS NO. 31, 1949.

CA

12

/ Rapid determination of protein in milk. V. Slavynov  
and G. Tsvet. *Molekulyarnaya Prom.* 12, No. 1, 38-4 (1951).—  
Milk is digested in Kjeldahl-type digest. app. by means of  
strong NaOH and a current of steam. The generated NH<sub>3</sub>  
is collected and titrated as usual. Data require 15 min.  
No acid digestion is used. A 10-mL portion of 10 N NaOH  
along with 10 mL 10% BaCl<sub>2</sub> is satisfactory for a 10-mL  
milk sample. G. M. Kowalsoff

1951

SLAVYANOV, V.

Dairying - Apparatus and Supplies

Equipment for cheese factories, Mol. prom, 13, No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952 ~~1953~~, Uncl.

SLAVYANOV, V.

Motor Trucks

Dairy plant equipment and milk trucks, Mol. prom, 13, No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952 ~~1953~~, Uncl.

SLAVYANOV, V., BARSOV, I.

Dairying - Apparatus and Supplies

Combination machine for processing milk. Abridged translation from the  
English by V. Slavyanov, I. Barsov, Mol. Prom. 13 No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952.  
Unclassified.

BARSOV, I. SLAVYANOV, V.

Ice Cream, Ices, Etc.

From foreign literature: Mechanization and automatization in ice cream production., Khol.  
tekh., 29, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952, 2 Uncl.

SLAVYANOV, VNG. V.

New Zealand - Dairy Plants

Technical equipment of New Zealand dairy plants (from "Dairy Industries,"  
nos. 12, 1951 and 1, 1952) Moloch. prom. 14 no. 3, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

POPOV, A., inzhener; SLAVYANOV, V., inzhener.

Exhibition of dairy industry equipment in London. Moloch.  
(MLRA 9:10)  
prom. 17 no.6:46-47 '56.

(London--Dairy industry--Equipment and supplies)

POPOV, A.; SLYAKHNOV, V.

At the exhibition of new equipment in Hannover. Moloch. prom. 18  
(MIRA 10:4)  
no. 4:42-44 '57.  
(Hannover--Dairy products--Equipment and supplies)

PA 35/49T48

SLAVYANOV, V. N.

Aug 48

USSR/Hydrology  
Erosion

"Graphic Comparison of the Abrasive Action of the Black Sea in Various Places on the Southern Shore of Crimea," V. N. Slavyanov, 4 pp

"Dok Ak Nauk SSSR" Vol LXI, No 6

Discusses factors influencing the sea's erosive action. Gives factors influencing erosion around Cape Sarych and Cape Aiya. Submitted by Acad B. Polynov, 22 Jun 48.

35/49T48

SLAVYANOV, V.N.

Characteristics of the development of the Batilivian landslide.  
Biul. MOIP. Otd. geol. 26 no.4:92 '51.  
(Crimea--Landslides) (MIRA 11:5)

SLAVYANOV, V.N.

OTBPL, No. 45

Slavyanov, V.N. (Crimean Branch, U.S.S.R. Academy of Sciences), Stages of development  
of landslide phenomena, 121-4

Akademiya Nauk, S.S.R., Doklady, vol. 79, no. 6 - 1951

SLAVYANOV, V.N.

Ancient river valleys of the Crimean steppe. Biul. MOIP. Otd.  
geol. 29 no.3:100-101 My-Je '54. (MLRA 7:8)  
(Crimea--Valleys) (Valleys--Crimea)

15-57-7-9956

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,  
pp 177-178 (USSR)

AUTHOR: Slavyanov, V. N.

TITLE: Natural Moisture Condensers of Mountain Slopes and  
the Possibility of Using Such Condensers for Low-  
Flow Water Supply (O yestestvennykh kondensatorakh  
gornykh sklonov i o vozmozhnosti primeneniya kondensa-  
torov dlya malodebitnogo vodosnabzheniya)

PERIODICAL: V sb: Vopr. izucheniya podzem. vod i inzh.-geol.  
protsessov. Moscow, AN SSSR, 1955, pp 79-92

ABSTRACT: The author describes observations of moisture condens-  
ation under natural conditions and also the tests of  
artificial condensation of atmospheric moisture. He  
proposes a method for flow measurement of trickling  
springs, and states that the part played by condens-  
ation in the formation of ground waters is commonly

Card 1/2

SLAVYANOV, V.N.

Gravitational movements of rocks on the slopes of the southern  
shore of the Crimea and some peculiarities of their development.  
Zemlevedenie 4:244-245 '57. (MIRA 10:9)  
(Crimea--Landslides)

SLAVYANOV, V.N.; FANDEYEVA, V.I.

Predicting aspects of engineering geology in opening and developing deposits in the Kursk Magnetic Anomaly. Mat. po geol. i pol. iskop. tsentr. raion. evrop. chasti SSSR no.2:174-186 '59. (MIRA 13:9)

1. Laboratoriya gidrogeologicheskikh problem AN SSSR.  
(Kursk Magnetic Anomaly--Engineering geology)

KISSIN, I.G.; KULIBABA, F.V.; PAFFENGOL'TS, N.K.; POPOV, I.V., doktor geol.-mineral.nauk; SLAVYANOV, V.N.; SOKOVICH, L.M.; FANDEYEVA, V.I.; BOGOMOLOV, G.V., retsenzent; KOTLOV, F.V., retsenzent; PANYUKOV, P.N., retsenzent; PRIKLONSKIY, V.A., retsenzent; SOKOLOV, N.I., retsenzent

[Conditions in the area of the Kursk Magnetic Anomaly from the point of view of engineering geology and hydrogeology; data on the development of deposits using the open-pit mining method] Inzhenerno-geologicheskie i gidrogeologicheskiy usloviia raiona kurskoi magnitnoi anomalii. Moskva, Izd-vo Akad. nauk SSSR, 1960, 165 p. (Akademija nauk SSSR. Laboratoriia gidrogeologicheskikh problem. Trudy, no.28)

(Kursk Magnetic Anomaly--Mining geology)

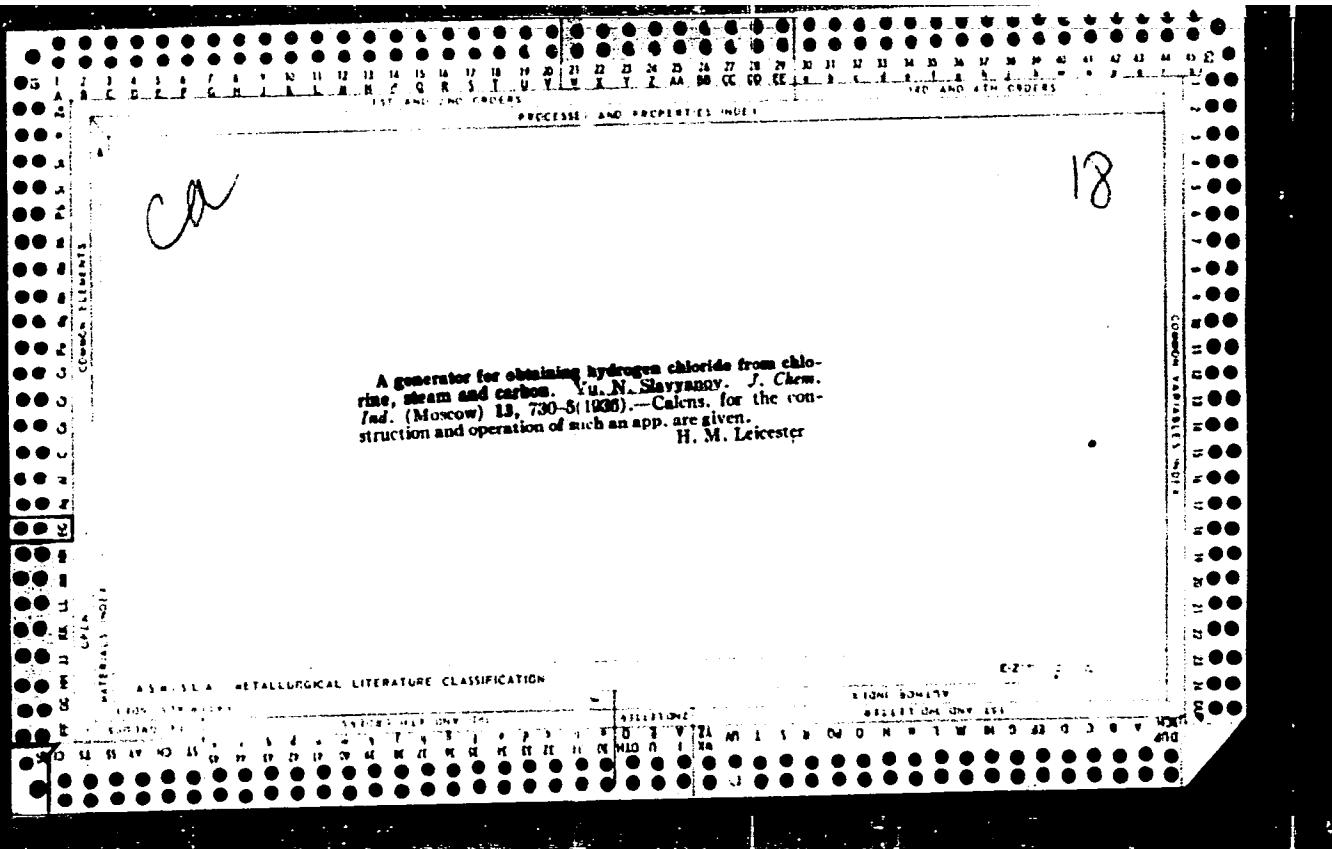
SLAVYANOV, V.N.

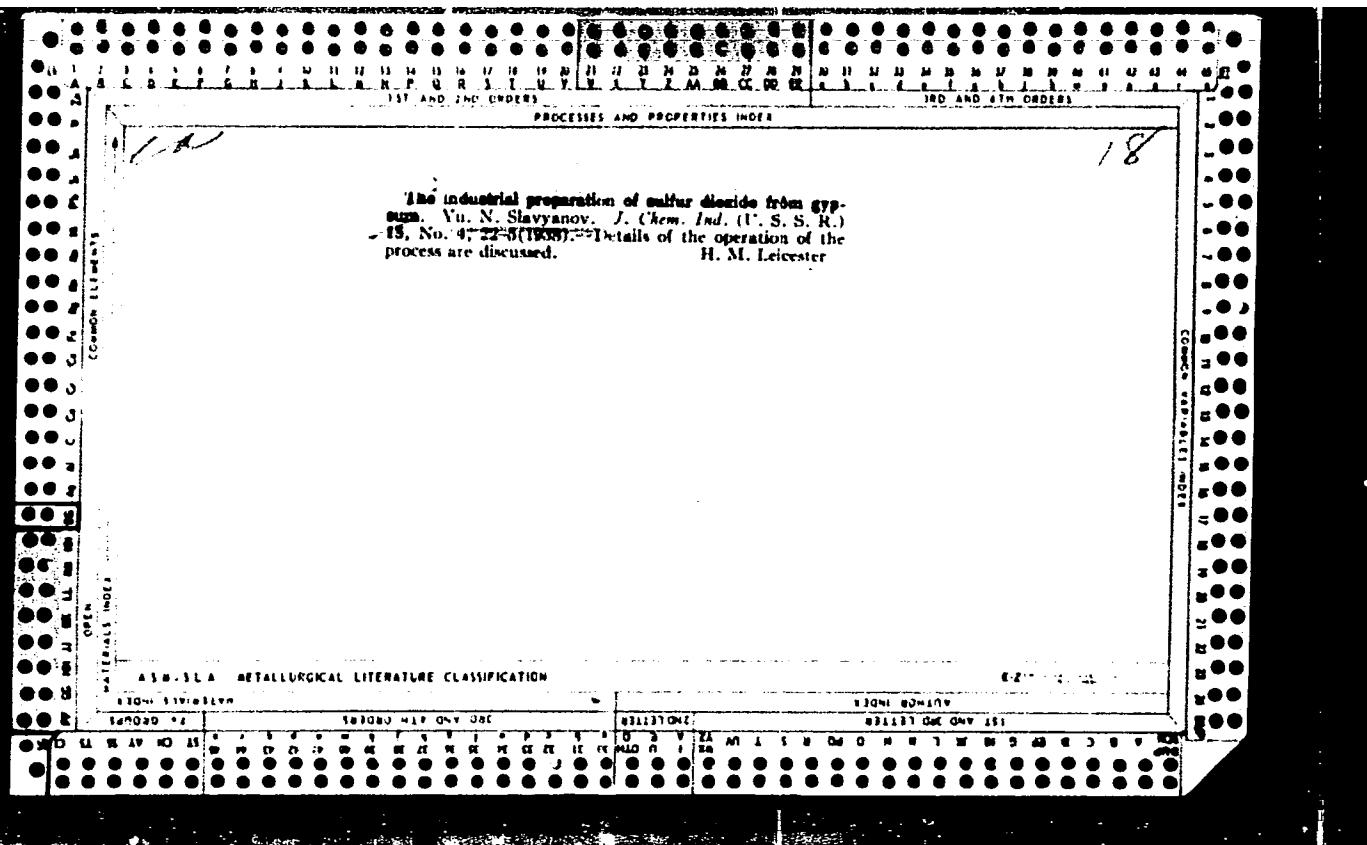
SLAVYNAOV, V.N.

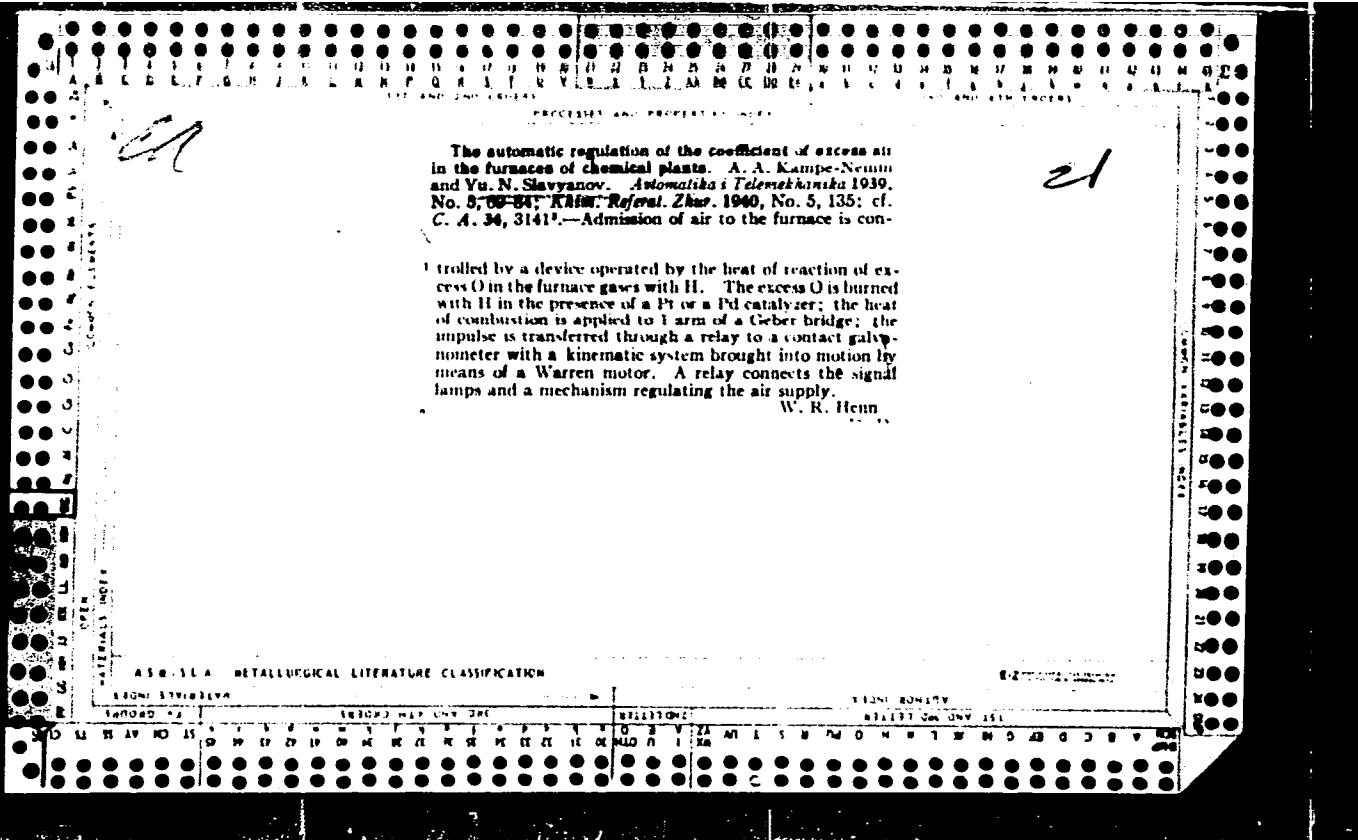
Graphic analysis of weakened zones and surfaces of rocks and its  
importance for studying the stability of slopes. Biul.MDIP.Otd.geol.  
35 no.4:146 Jl-Ag '60. (MIRA 14:4)  
(Engineering geology—Graphic methods)

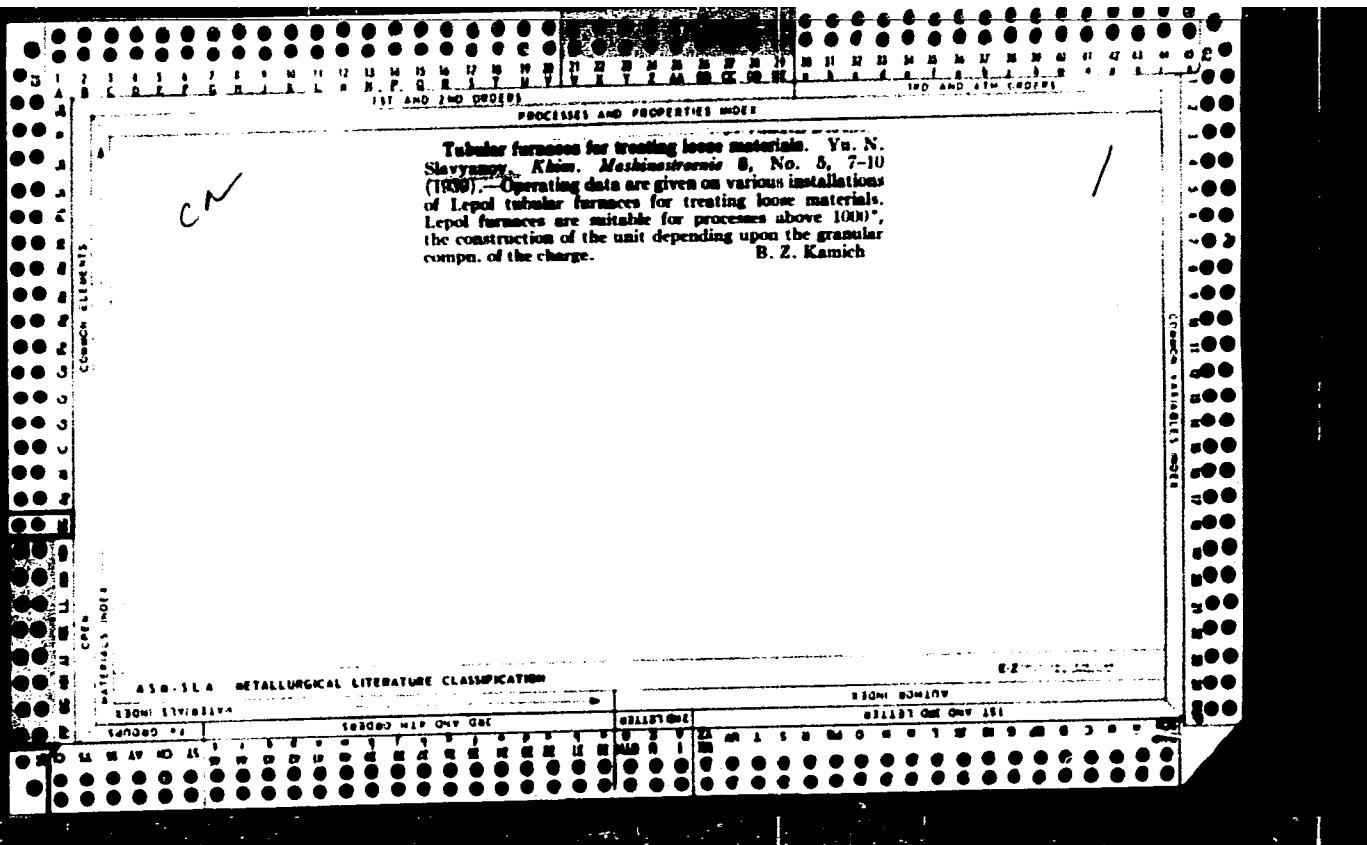
SLAVYANOV, V.N.; VINOGRADOVA, G.M., red.

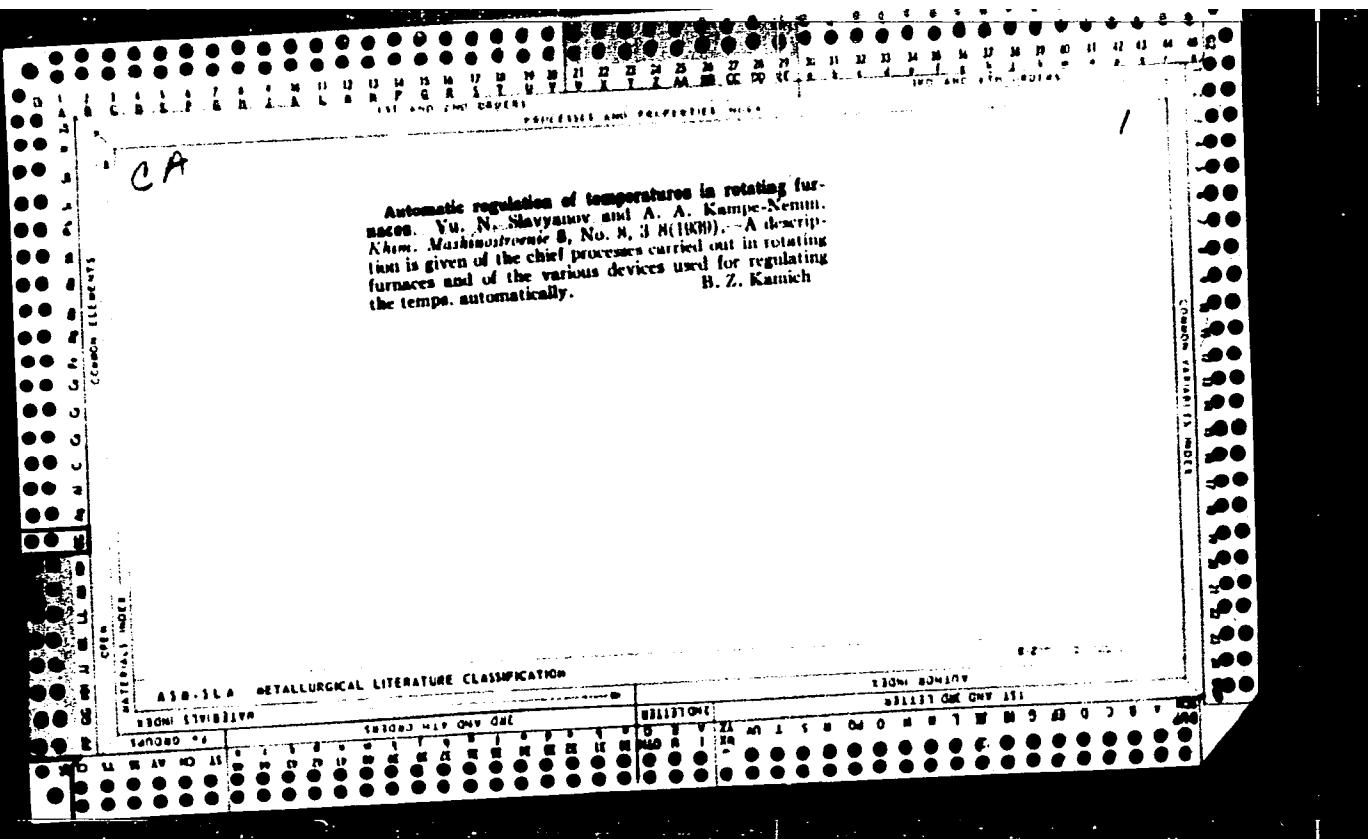
[Forecasting the stability of slopes from the viewpoint of  
engineering geology] Inzhenerno-geologicheskie prognozy  
ustoichivosti otkosov. Moskva, Stroizdat, 1964. 153 p.  
(MIRA 17:5)











SANDER, Yuryi Karlovich; SLAVYANOV, Yu.N., redaktor; RUL'VA, M.S.,  
tekhnicheskiy redaktor

[Technology and equipment in galena production] Tekhnologiya i  
oborudovaniye galenovykh proizvodstv. [Leningrad] Gos. izd-vo med.  
lit-ry, Leningradskoe otd-nie, 1956. 735 p. (MLRA 9:9)  
(Galena)

SLAVYANOV, Yu.N.

Calculation for heat exchangers. Trudy Len. khim.-farm. inst.  
no.4:12-18 '58. (MIRA 12:12)  
(Heat exchangers)

SLAVYANOV, Yu.N.

Using heat exchange data for the calculation of driers operating  
by means of air blowing through layers of material. Trudy Len. khim.-  
farm. inst. no.4:44-48 '58. (MIRA 12:12)  
(Heat--Transmission) (Drying apparatus)

YEGOROVA, V.I.; SLAVYANOV, Yu.N.

Effect of pressure and pressing time on the impact strength and  
disruptiveness of tablets. Trudy Len. khim.-farm. inst. no. 4:99-104  
'58. (MIRA 12:12)

(Tablets (Medicine)--Testing))

YEGOROVA, V.I.; RABOTNOV, N.K.; SLAVYANOV, Yu.N.; FILIPIN, N.A.

Testing tablets for hardness. Med.prom. 13 no.12:26-29 D 159.  
(MIRA 13:4)

1. Leningradskiy khimiko-farmatsevticheskiy institut.  
(TABLETS (MEDICINE))

SLAVYANOV, Yu.N.; REGAK, N.Ya.; GVOZDEV, N.V.

Regeneration of alcohol from wastes of vegetable raw material. Med.  
prom. 14 no.8:33-35 Ag '60. (MIRA 13:8)

1. Leningradskiy khimiko-farmatsevticheskiy institut i Leningradskiy  
khimiko-farmatsevticheskiy zavod No.1:  
(ALCOHOL) (DRUG INDUSTRY--BY-PRODUCTS)

SLAVYANOV, Yu.N.; REGAK, N.Ya.

"Reversed" rectification with the squeezing out of the solvent.  
Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.4:676-679 '61.  
(MIRA 15:1)

l. Leningradskiy khimiko-farmatsevticheskiy institut, kafedra  
protsessov i apparatov.  
(Distillation, Fractional)

YEGOROVA, V.I.; SLAVYANOV, Yu.N.; BARTASHEVICH, O.A.

Evaluation of the quality of tablets by their tendency to pulverization. Med.prom. 15 no.1: Ja '61. (MIRA 14:1)

1. Leningradskiy khimiko-farmaceuticheskiy institut.  
(TABLETS (MEDICINE))

SLAVYANOV, Yu.N.; REGAK, N.Ya.

Distillation of solvents directly from battery extractors.  
Med. prom. 15 no.6:44-47 Je '61. (MIRA 15:3)

1. Leningradskiy khimiko-farmatsevticheskiy institut.  
(SOLVENTS)  
(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

ZAMORUYEVA, T.A.; SLAVYANOV, Yu.N.

Determination of the free volume (porosity) in a layer of  
plant materials. Izv.vys.uch.zav.; khim.i khim.tekh. 5  
no.4:666-668 '62. (MIRA 15:12)

1. Leningradskiy khimiko-farmatsevticheskiy institut, kafedra  
protsessov i apparatov i kafedra obshchey khimicheskoy tekhnologii.  
(Porous materials)  
(Hydrodynamics)  
(Chemical engineering—Equipment and supplies)

YEGOROVA, V.I.; SLAVYANOV, Yu.N.

Unity of the indices for mechanical tablet stability. Med. prom. 16  
no. 3:20-24 Mr '62. (MIRA 15:5)

1. Leningradskiy khimiko-farmatsevticheskiy institut.  
(TABLETS (MEDICINE))

REGAK, N.Ya; SLAVYANOV, Yu.N.

Distillation of alcohol from the products of the galenic industry. Trudy Len. khim.-farm. inst. no.14:82-86 '62  
(MIRA 17:2)

YEGOROVA, V.I.; SLAVYANOV, Yu.N.

Effect of fillers on the properties of pyramidon tablets.  
Trudy Len. khim.-farm. inst. no.14:99-103 '62 (MIRA 17:2)

SLAVYANO<sup>1</sup>, Yu.N.; REGAK, N.Ya; FILIPIN, N.A.

Construction of extractors of continuous action. Trudy Len.  
khim-farm. inst. no.14: 107-112 '62 (MIRA 17:2)

SLAVYANOV, Yu.N.; KAMPE-NEMM, A.A.; FILIPIN, N.A.

Automation in the production of extracts. Med.prom. 16 no.5:36-40  
My '62. (MIRA 15:9)

1. Leningradskiy khimiko-farmatsevticheskiy institut i Leningradskiy khimiko-farmatsevticheskiy zavod No.1.  
(DRUG INDUSTRY) (EXTRACTS)

AL'TOVSKIY, Mikhail Yevgen'yevich; BRODSKIY, A.A.. Prinimali uchastiye:  
DOBRYNIN, P.A.; SLAVIANOVA, L.V., CHURINOV, M.V.. CHAPOVSKIY,  
Ye.G., red.; SOLOV'YEVA, kartograf, red.kart; DOLGONOS, L.G.,  
tekhn.red.kart; GRISHINA, T.B., red.izd-va; BYKOVA, V.V., tekhn.  
red.

[Methodological directions for the compilation of hydrogeological  
maps at the scales of 1:1,000,000 - 1:500,000 and 1:200,000 -  
1:1,100,000] Metodicheskie ukazaniia po sostavleniiu hidrogeolo-  
gicheskikh kart, masshtabov 1:1,000,000 - 1:500,000 i 1:200,000 -  
1,100,000. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i  
okhrane nadr, 1960. 49 p., maps. (MIR 13:6)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut hidro-  
geologii i inzhenernoy geologii.  
(Water, Underground--Maps)

URTHI, V. S. & VENKOV, L. V.; IZMENNIT, V.

Further study of underground water bearing complex mineral;  
records of the Coordination Conference on the study of Underground  
Mineral Resources, Moscow, 1977. Session 1. no.7:152-152. 31  
(NEI M.07)

Further study of underground water bearing complex mineral;  
records of the Coordination Conference on the study of Underground  
Mineral Resources, Moscow, 1977. Session 1. no.7:152-152. 31  
(NEI M.07)  
(later, underground)

MARINOV, N.; SLAVYANOVA, L.

"Hydrogeology and waters of oil and gas fields" by G.M.  
Sukharev. Reviewed by N.A. Marinov, L.V. Slavianova.  
Geol. nefti i gaza 5 no.7:56 and 3 of cover J1 '61. (MIRA 14:9)  
(Oil field brines)  
(Sukharev, G.M.)

SLAVYANOVA, L.V.

Underground waters in Kurgan Province and their utilization for  
water supply. Vop.gidrogeol. i inzh.geol. no.19:3-20 '61.  
(MIRA 15:2)

(Kurgan Province--Water, Underground)

SLAVYANOVA, L. V.

Mineral waters in the southwestern part of the West Siberian  
Plain. Vop. gidrogeol. i inzh. geol. no.20:117-124 '62.  
(MIRA 16:4)

(West Siberian Plain—Mineral waters)

SLAVYANOVA, Liviya Vol'demarovna; YASSON, R.A., red.izd-va; MARINOV,  
N.A., nauchn. red.; SHMAKOVA, T.M., tekhn. red.

[Mineral waters and waters of commercial importance in the  
Volga-Ural region] Mineral'nye i promyshlennye vody Volgo-  
Ural'skoi oblasti. Nschn. red.N.A.Marinov. Moskva, Gos-  
geoltekhizdat, 1963. 92 p. (MIRA 16:8)

(Volga-Ural region--Mineral waters)

(Volga-Ural region--Water, Underground)

AL'TOVSKIY, M. Ye.; GOLEVA, G.A.; KRAYNOV, S.R.; SLAVYANOVA, L.V.;  
TOKAREV, A.N.; FROLOV, N.M.; SHVETS, V.M.

Development of V.I.Vernadskii's concept in present-day hydrogeology.  
(MIRA 17:10)  
Trudy VSEGINGEO no.9:5-20 '64.

SLAVYANOVA, L.V.; GALITSYN, M.S.

Bromine, iodine, and strontium in the underground waters of the  
Caspian lowland and regions adjacent to it. Trudy VSEGINGEO  
no. 9:56-71 '64. (MIRA 17:10)

GALITSYN, M.S.; GALITSYNA, E.I.; SLAVYANOVA, L.V.

Strontium in the rivers, ground waters, and salt lakes of the  
Caspian Lowland. Dokl. AN SSSR 161 no.1:205-206 Mr '65.  
(MIRA 18:3)  
1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii  
i inzhenernoy geologii. Submitted June 8, 1964.

GALITSYN, M.S.; SLAVYANOVA, L.V.

Rubidium in the underground and surface waters of the Caspian  
Lowland. Dokl. AN SSSR 165 no.3:678-681 N '65.

(MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii  
i inzhenernoy geologii. Submitted June 9, 1965.

SLAVYANOVA, N.F.

SAFIANO, Tat'yana Alekseyevna; KORZHINSKIY, D.S., akademik, redaktor;  
BORNEMAN, I.D., doktor geologo-mineralogicheskikh nauk, redaktor;  
VAKHRAZEMEV, V.A., doktor geologo-mineralogicheskikh nauk,  
redaktor; GROMOV, V.I., doktor geologo-mineralogicheskikh nauk,  
redaktor; KELLER, B.M., doktor geologo-mineralogicheskikh nauk,  
redaktor; LEBEDEV, A.P., doktor geologo-mineralogicheskikh nauk,  
redaktor; KHAIN, V.Ye., doktor geologo-mineralogicheskikh nauk,  
redaktor; SHTREYS, N.A., doktor geologo-mineralogicheskikh nauk,  
redaktor; YABLOKOV, V.S., kandidat geologo-mineralogicheskikh nauk,  
redaktor; MERKLIN, R.L., kandidat biologicheskikh nauk, redaktor;  
VAYSMAN, L.S., nauchnyy sotrudnik, redaktor; ~~SLAVYANOVA, N.F.~~,  
nauchnyy sotrudnik, redaktor; LEPESHINSKAYA, Ye.V., redaktor;  
TUMARKINA, N.A., tekhnicheskiy redaktor

[English-Russian geological dictionary] Anglo-russkii geologicheskii  
slovar'. Pod red. D.S.Korzhinskogo i dr. Moskva, Gos. izd-vo  
tekhniko-teoret.lit-ry, 1957. 528 p. (MIRA 10:7)

(English language--Dictionaries--Russian)  
(Geology--Dictionaries)

RYABOV, P., inzhener; SLAVYANOVA, T., inzhener

Use of ultraviolet rays for defect detection in the repair of  
refrigerating equipment. Khol.tekh.32 no.2:64-66 '55.  
(MIRA 8:10)  
(Refrigeration and refrigerating machinery) (Ultraviolet  
rays)

SLAVYANOVICH, V. YA.

"Propagation over the Surface of a Shallow Reservoir of Waves Generated by Disturbances Centered within a Deep Reservoir Communicating with the Former." Moscow Order of Lenin State U imeni M. V. Lomonosov, Moscow, 1955. (Dissertation for the Degree of Candidate of Physical and Mathematical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

SOV/124-57-3-3079

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 60 (USSR)

AUTHOR: Slavyanovich, V. Ya.

TITLE: On the Propagation of Waves Generated by Perturbation Sources Concentrated in a Deep Basin Along the Surface of a Shallow Basin Which is Interconnected With the Deep Basin (O rasprostranenii voln, vyzvannykh vozmushcheniyami, sosredotochennymi v glubokom basseyne, po poverkhnosti melkogo basseyna, soobshchayushchegosya s glubokim)

PERIODICAL: Uch. zap. Chkalovskiy ped. in-t, 1956, Nr 9, pp 55-105

ABSTRACT: The Cauchy-Poisson problem is solved for an idealized incompressible liquid contained in two interconnected basins, one of which has a finite depth  $h$  while the other basin is of infinite depth. The following system of coordinates is introduced: The  $x$ -axis lies along the unperturbed surface of the liquid; the  $y$ -axis is directed vertically upward along the dividing line between the two basins. The deep-basin region consists of area I where  $x < 0$ ,  $-\infty < y < 0$ ; the shallow-basin region consists of area II where  $x > 0$ ,  $-h < y < 0$ . The two basins are separated by a solid wall along the  $(-\infty < y < h, x=0)$

Card 1/3

SOV/124-57-3-3079

## On the Propagation of Waves Generated by Perturbation Sources (cont.)

segment and are interconnected along the ( $-h < y < 0$ ,  $x=0$ ) segment. It is assumed that the initial perturbations are located in the deep basin and that the depth  $h$  of the shallow basin is small as compared to the length of the refracted waves propagating along its surface. The velocity potentials  $\Phi(x, y, t)$  and  $\phi(x, t)$  are introduced. Expression  $\Phi(x, y, t)$  is a harmonic function within region (I) which satisfies the following conditions: (a) The wave-forming condition

$$\lim_{y \rightarrow 0} \left[ \frac{\partial^2 \Phi}{\partial t^2} + g \frac{\partial \Phi}{\partial y} \right] = 0$$

(b) the condition of flow about the solid wall, and (c) the predetermined initial conditions. Expression  $\phi(x, t)$  under zero initial conditions satisfies the wave equation in region (II). The following conditions must also be satisfied: (a) The condition of equality of the rise of the liquid at point ( $x=0$ ,  $y=0$ ) and (b) the conditions of equality of the normal velocity components along the boundary of the two basins

$$\lim_{x \rightarrow -0} \left[ \frac{\partial \Phi}{\partial x} \right]_{-h < y < 0} = \lim_{x \rightarrow +0} \left[ \frac{\partial \Phi}{\partial x} \right]_{-h < y < 0} = \rho(t)$$

Card 2/3

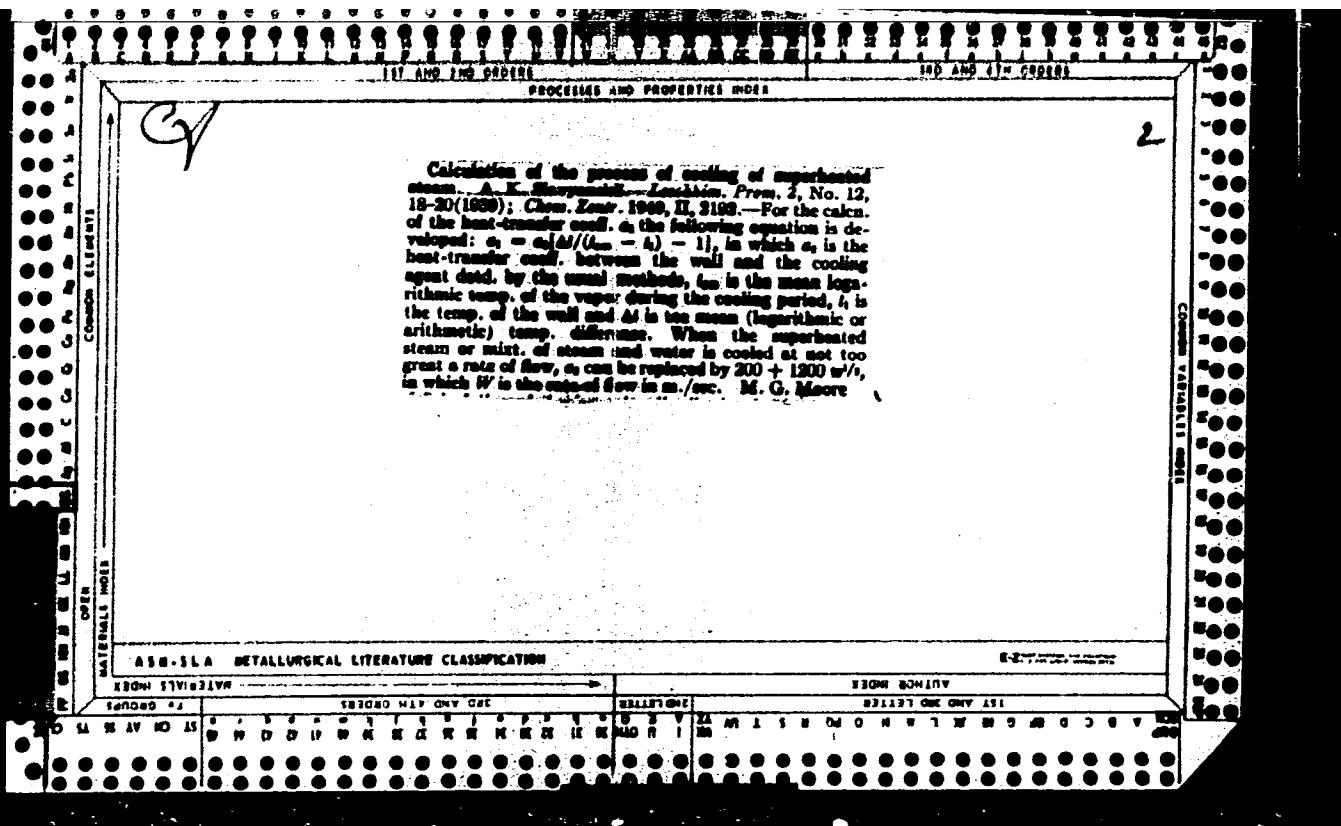
SOV/124-57-3-3079

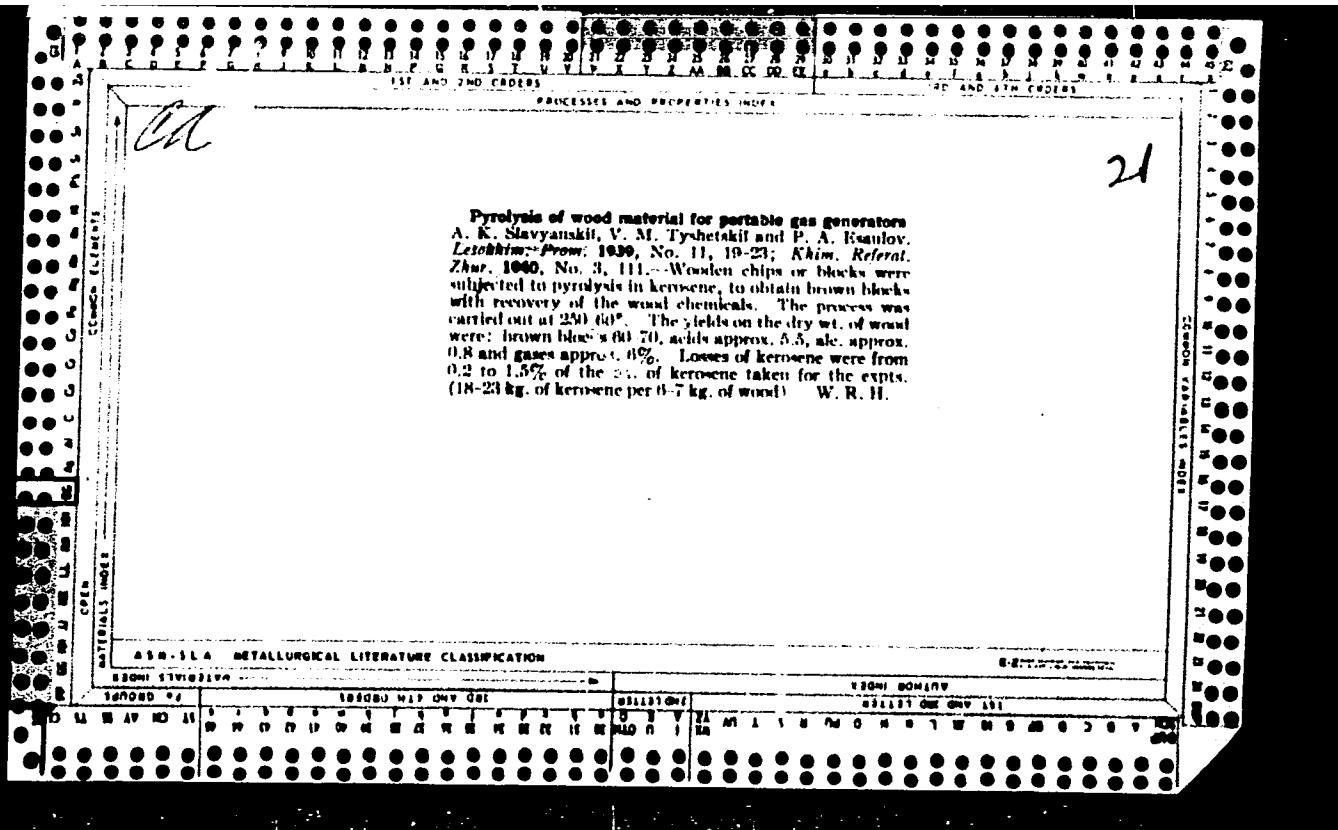
On the Propagation of Waves Generated by Perturbation Sources (cont.)

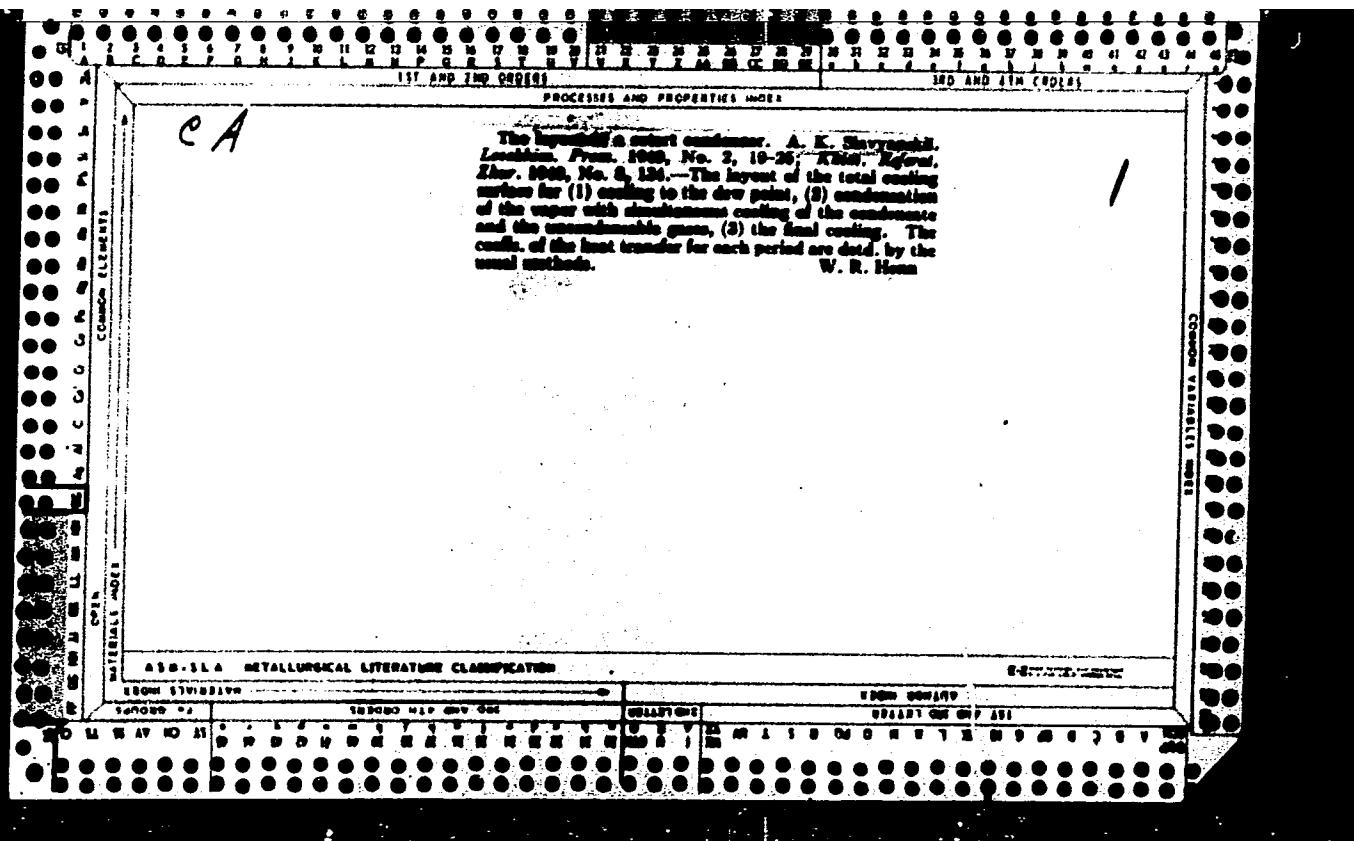
where  $\rho(t)$  is some unknown function of  $t$ . Expressions  $\Phi(x, y, t)$  and  $\phi(x, t)$  are found in relation to  $\rho(t)$ . For the determination of  $\rho(t)$ , the Volterra equation of the second kind, with a finite-difference kernel possessing a logarithmic singularity, is obtained from the equality of velocities. This equation is solved by the method of operational calculus and the solution is obtained in the form of a Riemann-Mellin integral. The complexity of the integrand function does not afford a physical representation of the motion. In order to find an approximate solution for small values of  $t$ , the method of successive approximations and the Steklov method of evaluation of definite integrals are adopted. The singularity of the solution is proved.

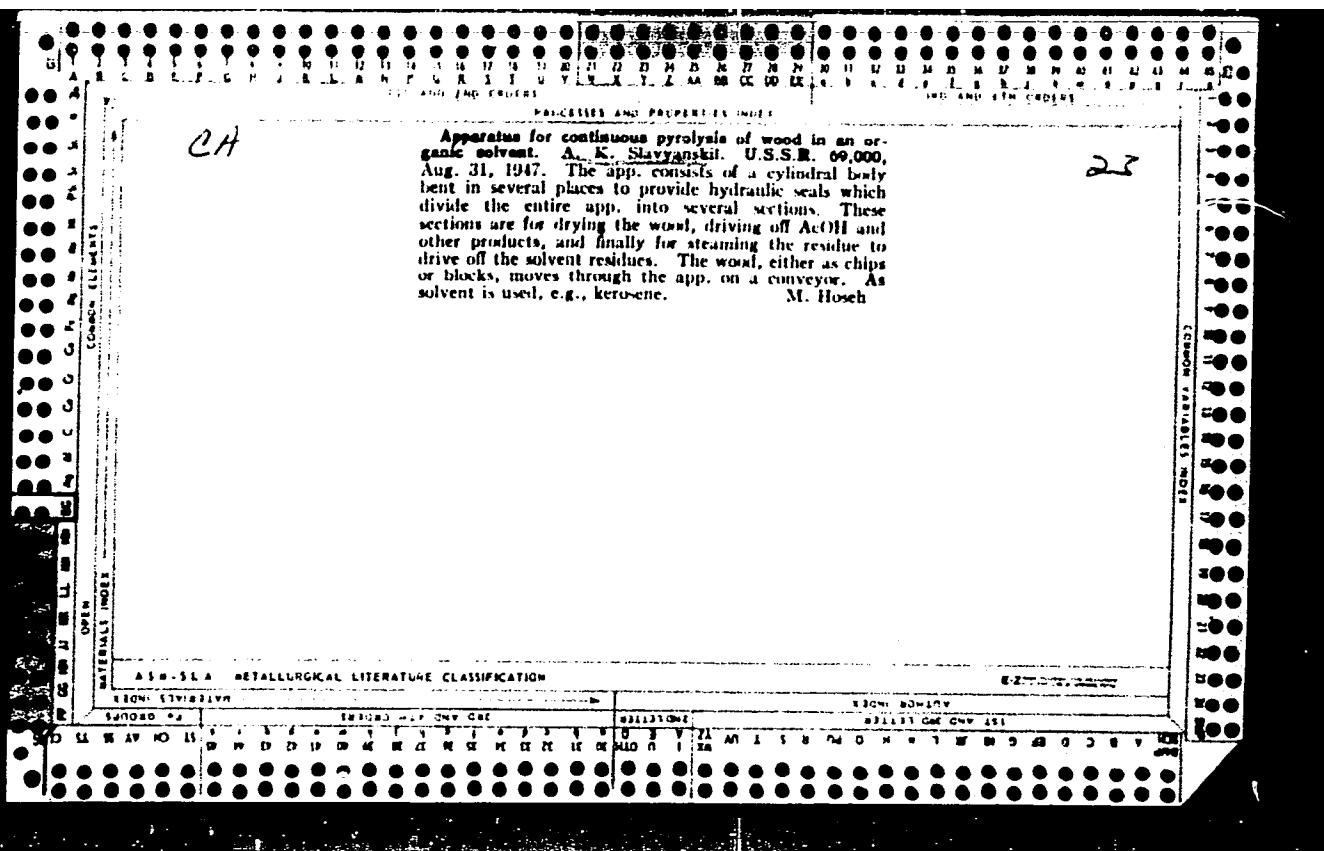
A. M. Ter-Krikorov

Card 3/3









SLAVYANSKIY, A.K.

Slavyanskiy, A.K. "On the question of using timber for fuel", (Electrochemical processing),  
Trudy Lesotekhn. akad. im. Kirova, No. 63, 1948, p. 3-12, - Bibliog: 10 items.

SC: U-3042, ll March 53, (Letopis 'nykh Statey, No. 9, 1949)

SLAVYANSKIY, A.K.

Wood pyrolysis. Patent U.S.S.R. 78,312, Dec. 31, 1949.  
(CA 47 no.19:10202 '53)

SLAVYANSKIY, A. K.

USSR/Fuel  
Coal  
Peat

Jul 49

"New Literature on Fuel Economy," 1 p

"Za Ekonomiyu Topliva" No 7

Includes I. D. Belokopytov's book, "Technical Qualities of Peat Fuel and Their Determination," V.V. Petrovichev's book, "Industrial Furnaces Using Coal Dust," and A. K. Slavyanskiy's article, "The Problem of Utilizing Wood as Fuel."

PA 54/49T63

SLAVYANSKIY, A. K.

Slavyanskiy, A. K. - "Obtaining city (Illuminating gas from wood," Trudy Lesotekhn. akad.im. Kirova, No 65, 1949, p. 63-71, Bibliog: 10 items

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

KOZLOV, Vasiliy Nikolayevich; NIMVITSKIY, Anatoliy Avgustich; SUMAROKOV,  
V.P., redaktor; FEDOROV, B.M., redaktor; KHLYSOV, A.I., retsenzent;  
SLAVYANSKIY, A.K., retsenzent; KARASIK, N.P., tekhnicheskiy redaktor

[Technology of pyrogenic processing of wood] Tekhnologiya pirogene-  
ticheskoi pererabotki drevesiny. Moskva, Gos.lesbumizdat, 1954.  
(MLRA 8:11)

619 p.  
(Wood--Chemistry) (Pyrolysis)

MARTYNEJKO, Konstantin Dmitriyevich; SLAVYANSKIY, Aleksey konstantinovich,  
retsenzent; MIKHAYLOV, M.I., redaktor; NIKOLAYEVA, I.I., redaktor  
izdatel'stva; KORASIK, N.P., tekhnicheskij redaktor

[Technical equipment of hydrolysis and sulfite and alcohol plants]  
Tekhnologicheskoe oborudovanie gidroliznykh i sul'fitno-spirtovykh  
zavodov. Moskva, Goslesbumizdat, 1956. 251 p. (MLRA 9:10)  
(Chemistry, Technical--Equipment and supply)  
(Alcohol) (Sulfite liquor)

SLAVYANSKIY, Aleksey Konstantinovich, prof.; SHARKOV, Vasiliy Ivanovich, prof.; LIVEROVSKIY, Aleksey Alekseyevich, dots.; BUYEVSKOY, Anatoliy Vasil'yevich, dots.; MEDNIKOV, Fedor Alekseyevich, dots.; LYAMIN, Vladimir Aleksandrovich, dots.; SOLODKIY, Fedor Timofeyevich, dots.; TSATSKA, Elio Mat'-' Iudovich, dots.; DMITRIYEVA, Ol'ga Andreyevna, assistant; NIKANDOROV, Boris Fedorovich, inzh.; GORDON, L.V., kand. tekhn. nauk, retsenzent; SUKHANOVSKIY, S.I., red.; KHOT'KOVA, Ye.S., red.izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Chemical technology of wood] Khimicheskaya tekhnologiya drevesiny. Moskva, Goslesbumizdat, 1962. 574 p. (MIRA 16:4)  
(Wood—Chemistry)

5/072/60/000/01/021/023  
NSC 3/3008APPENDIX: Brikovskiy, E. M.7778:  
3rd All-Soviet Conference on the Vitreous StatePART OF:Steklo i keramika, 1960, Nr. 5, pp. 43-46 (USRR)ABSTRACT:

The 3rd All-Soviet Conference on the Vitreous State was held in Leningrad at the end of 1959. It was organized by the Institute of Glass and Silicate Materials of the Ministry of Light Industry (All-USSR), Vsesoyuznye Naukovo-Issledovatel'skiye Obshchestvoa (VNIIG) D. I. Sosulin (All-Soviet Chemical Society Award), S. I. Matrosova (State Optical Institute Award), S. I. Tsvetkov (More than 100 reports on the structure of glass, investigations of the vitreous state, the mechanics of vitrification and physicochemical and technical properties of glasses were delivered. The Conference was opened by Academician A. A. Lebedev.

At the 7th session, 6 reports dealt with the influence of electric conductivity, 9 with the coloring of glasses and the influence of radioactive and magnetic fields on the physical properties of glasses.

V. I. Vanch and Z. F. Kozhukharova reported on the coloring of glass in the presence of their structure. M. V. Tsvetkov, N. G. Chikishev, A. A. Isfeld, absorption spectra of the glass, I. I. Kostylev for the composition of boron and aluminum in glasses. V. N. Dubrovina and N. V. Barzak reported on the change of the optical constants of glasses during incorporation under the influence of various factors. G. G. Karapetyan reported on the influence of the temperature of cooling on spectral and chemical properties of the corundum. M. V. Tsvetkov reported on the role of the additives and the crystallization of quartz glass by calcination. L. M. Shchegoleva and R. I. Sizikova reported on the physicochemical nature of pure correlation in addition and glass (from glass, ceramics).

N. I. Tsvetkov reported on physico-chemical investigations of silicate of ferromagnetic oxides in a state of equilibrium. L. P. Ponomareva reported on the importance of the Vitreous Phase in the Formation of the Optical Body and the Crystal Clusters. V. A. Frenev reported on the physical

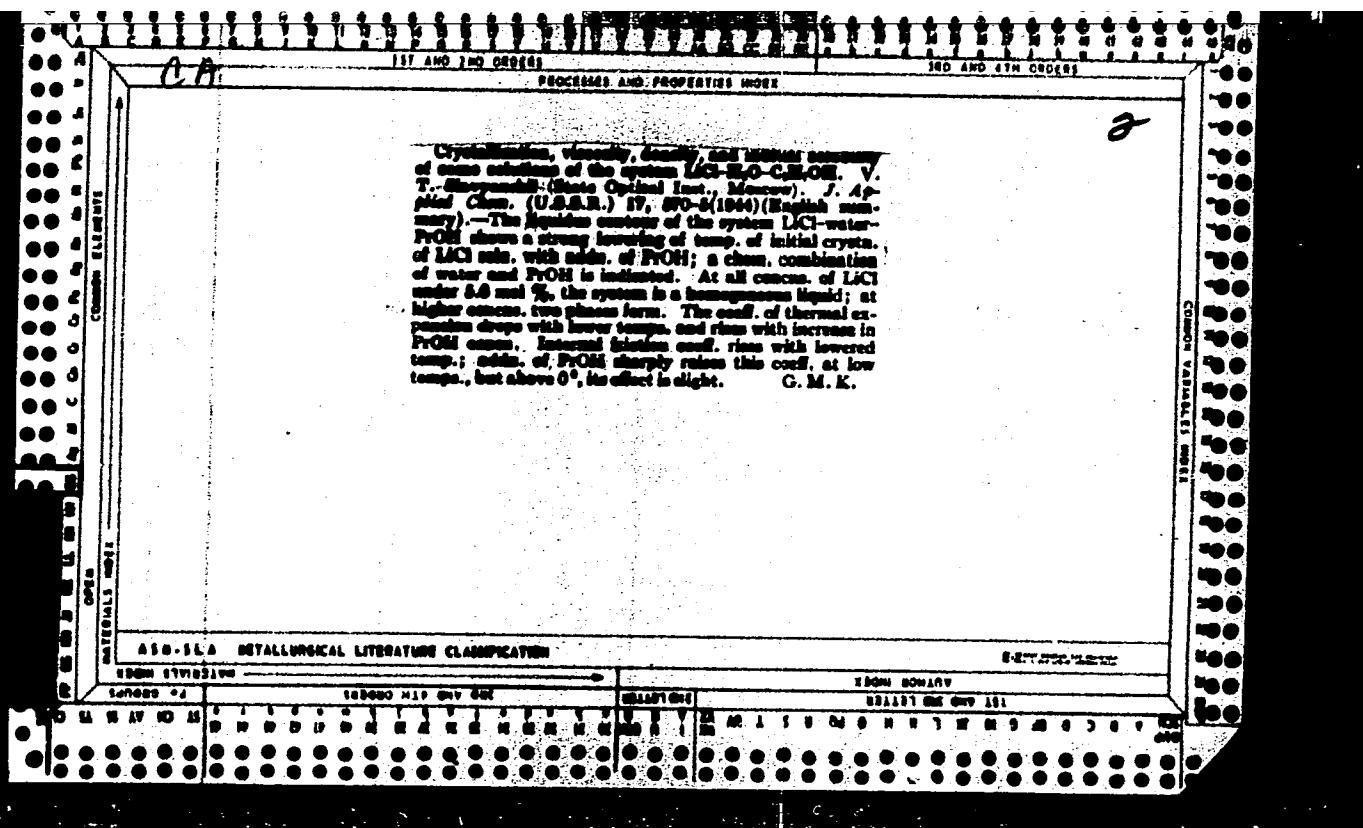
chemical fundamentals of the field of glass and crystal. This field deals with physical chemistry and mechanical properties of glass. N. M. Tsvetkov, O. M. Baranova and S. N. Dubrovina made comprehensive reports. A. A. Apgan reported on the fundamental structural parameters which determine the properties of the glass. A. V. Glebov, V. A. Baburovskaya, V. V. Marasov reported on research results of the Polymeric Structure of Borosilicate Glasses. N. I. Dratina reported on peculiarities of the expansion of oxides in silicate glasses. V. G. Blayevskiy reported on the influence of covariant elements and metal salts in the presence of the Vitreous Phase. A. M. Grishchuk reported on physico-chemical properties of amorphous glass. V. N. Shchegoleva reported on the properties of alkali silicate glasses. V. N. Shchegoleva reported on the dependence of the properties of alkali silicate glasses on the composition. J. I. Soshnikova reported on the investigation of the dependence of the Optical Properties of Phosphate Glasses on the Composition. A. M. Isakova reported on the relationship between the Optical Constants of Glass. E. S. Janina reported on mechanical properties of glass fibers. G. E. Tsvetkov, L. S. Terent'eva made a report on the mechanical properties of inorganic glasses in the anomalous interval and on their structure. Ya. I. Kozlovs'kiy reported on the elastic properties of glasses and on the influence of the composition of the glasses on their mechanical

properties. A. I. Al'tukyan reported on the subject "Vitrification of Molten Glasslike Barium by Aqueous Solutions of Acids and the State of the Oxides in the Structure of Glass". N. M. Bratoborikh and V. M. Sazanova reported on synthesis and investigation of hafnium silicate glasses. S. K. Dobrovova reported on physico-chemical properties of gallium silicate glasses. V. A. Dubrovina and T. S. Dobrovolskaya reported on the surface film forming on silicomagnesium glass in the acidic, neutral and basic medium. The following Jerome reported at the final session: V. P. Korotina on the influence of the alkaline earth oxides on the chemical stability of glasses in a humid atmosphere; L. Ya. Masalov on vitrification and properties of borate glasses; B. P. Milyutin, Ya. A. Matrosova and T. I. Zolotov on the separation of silicate glasses with solutions. Doctor Tsvetkov and Novgorodov gave a speech from Eastern Germany. Academician N. V. Belov, M. A. Shekurov, V. I. Kitaygorodskiy, and N. K. Kaler also spoke at the final session.

Card 6/6

Card 7/6

Card 8/6



CP

2

**Polymorphism in liquids.** V. F. Slavyanskii. *Doklady Akad. Nauk S.S.R.* **58**, 1077 (1947). Plots of temp. vs. viscosity temp. coeff. are presented for salol, H<sub>2</sub>O, KNO<sub>3</sub>, PbCl<sub>2</sub>, and BaCl<sub>2</sub>, following Irany (C.I., 32, 8867; 33, 8088), using as  $\phi$ -scale standards: PrOH, EtOH, and 8088. It appears that above 38.8° salol exists in a crystalline state characteristic of the liquid state; H<sub>2</sub>O shows a curve change at 53° indicating a structure change. BaCl<sub>2</sub> shows a break at 1006°, PbCl<sub>2</sub> at 550°, and KNO<sub>3</sub> at 410°.  
G. M. Kosolapoff

SLAVYANSKIY, V. T.

PA 6127

USSR/Electronics  
Vacuum Tube Testing  
Vacuum Apparatus

Jan 1948

"A Tesla Arrangement for Testing Vacuum Systems,"  
V. T. Slavyanskiy, State Optical Inst, 2 pp

"Zavod Labor" Vol XIV, No 1

Describes a Tesla arrangement based on data submitted  
by Engineer B. N. Dyn'kov. This apparatus could fill  
a deficiency in technology, being simple to manufac-  
ture and operate.

61T27

SLAVYANSKIY, V. T.

LC

PA 192T41

"Behavior of Molten Glass on Platinum in the Atmosphere of Various Gases," V. T. Slavyanskiy, Leningrad

"Zhur Fiz Khim" Vol XV, No 9, pp 1059-1063

Found that silicate and borate glasses do not wet platinum in vacuum or an atm of nitrogen, hydrogen, carbon dioxide, or water vapor. In the presence of the least trace of oxygen, however, molten glass spreads over the whole surface of the platinum. The platinum may have

LC

192T41

USSR/Chemistry - Glass (Contd)

Sep 51

contained iridium: possibly wetting is caused by formation of an oxygen-containing film of Pt or Ir. It was shown that degassed molten glass absorbs water vapor, CO<sub>2</sub>, and air.

192T41

USSR/Chemistry - Glass

Sep 51

SLAVYANSKIY, V. T.

RA-236T106

USSR/Physics - Pressure Measurements

Nov 52

"Conditions Governing the Operation of the Absolute  
Mercury Manometer," V. T. Slavyanskiy

"Zhur Tekh Fiz" Vol 22, No 11, pp 1881-1884

Describes in detail the conditions governing the oper-  
ation of the abs mercury manometer, which possesses  
great sensitivity and accuracy and measures the pres-  
sure of a mixture of any gases in the interval from  
0.002 to 1.5 mm/Hg. The main condition is the strict  
thermostatic control of the manometer at temp lower  
than 15° C, and avoidance of shocks.

236T106

SLAVYANSKI, V. T.

(2)

Measuring the viscosity of glass. V. T. Slavyanski (Russian J. Phys. Chem., 1952, 26, 1721, Summary, Glass Ind., 1953, 34, 544-545).

--The rotating-ball method was adopted in an apparatus with the glass stationary and the ball continuously rotated by a force transmitted through a torsion wire. The accuracy of measurement on a borosilicate glass at 950--1350° corresponded to an accuracy of temp. measurement of 10°. The  $\eta$ -temp. relation was  $\propto$  that of the glass  $Na_2O; 2SiO_2$  (Skornyakov data). J. A. Sugden.

SLAVYANSKIY, V.T.

3

(2)

Method of analyzing gas bubbles in glass less than 0.2 mm. in diameter. V. T. SLAVYANSKI AND E. N. KRESTNIKOVA. *Sieklo i Keram.*, 10 [11] 11-15 (1953).—The glass sample is crushed between concave and convex lenses, and the gas is absorbed by glycerin on the concave lens. The gas is evacuated from the glycerin through a microburette and passes successively into absorbers. To eliminate the absorption of CO<sub>2</sub>, experiments were conducted to determine the rate at which the diameter of the bubble decreases as a function of the diameter size and the CO<sub>2</sub> content. Results compared favorably with those obtained by the absorption of CO<sub>2</sub> in alkali. 10 figures. B.Z.K. M.V.

SLAVYANOVSKY, V. V.

Chemical Abst.  
Vol. No. 9  
May 18, 1954  
Glass, Clay Products, Refractories,  
and Enameled Metals

3 (1) *natural*  
The temperature dependence of the viscosity of liquids  
and molten substances. V. V. Slavyanski. *Zhur. Fiz. Khim.*  
27, 1776-80 (1953); c. C.A. 47, 67618.—If in the viscosity  
( $\eta$ )-temp. ( $t$ ) diagram the  $\eta$  coordinate is distorted to make  
the  $\eta$ - $t$  curve a straight line for a "standard substance,"  
then the  $\eta$ - $t$  lines of chemically similar substances also are  
straight. Thus, Hg is a suitable "standard substance"  
for molten metals, LiNO<sub>3</sub> for molten salts; EtOH for alco-  
hols and acids, salol for esters, etc., and NaSiO<sub>3</sub> for sil-  
icate glasses. Such graphs are suitable for interpolation and  
extrapolation of  $\eta$ . J. J. Bikerman

AK  
9-17-54

SLAVYANSKIY, V. T.

USSR/Chemistry - Physical chemistry

Card 1/1 : Pub. 147 - 18/21

Authors : Slavyanskiy, V. T., and Krestnikova, E. N.

Title : About the accuracy of measuring the viscosity of melted glass

Periodical : Zhur. fiz. khim. 8, 1497-1506, Aug 1954

Abstract : Investigations were conducted to determine the basic sources of errors originating during viscosity measurement of melted Si-glass at 900-1500°C. The average deviations of measured temperatures from actual temperatures were evaluated. The three groups of errors, originating during the measurement of viscosity of melted glass, are described. Proposals for further improvement of glass viscosity measuring methods are included. Nine references: 4-USSR; 3-German; 1-French and 1-USA (1926-1954). Tables; graphs.

Institution : ...

Submitted : February 15, 1954

SLAVYANSKIY, V. T.

USSR/Chemistry

Card 1/1

Authors : Slavyanskiy, V. T., and Gutkina, N. G.

Title : About the error in the measurement of fusion viscosity connected with thermal expansion of platinum globules of torsion viscosimeters

Periodical : Zhur. Fiz. Khim., 28, Ed. 5, 851 - 855, May 1954

Abstract : The error originating during viscosity measurement of liquids at high temperatures as result of thermal expansion of the platinum globule of the viscosimeter suspension system was determined at viscosity values of 98 and 977 poise respectively. A correction was formulated which should be introduced during the measurement of fusion viscosity at high temperatures and for the calculation of the thermal expansion of the platinum globule of a torsion viscosimeter. Four references: 2-USSR, 1-English and 1-German. Table, graphs, drawing.

Institution : ...

Submitted : Aug. 29, 1953

SLAVYANSKIY, V. T.

The precision of the measurement of the viscosity of molten glasses. V. T. Slavyanskiy and E. N. Krestnikova. *Zhur. Fiz. Khim.* 28, 1497-1506 (1954); cf. *C.A.* 47, 5751b.  
—The viscosity  $\eta$  was detd. with a com. instrument in which a Pt ball suspended on a torsion wire in molten glass was deflected when the wire was twisted. The error of the instrument for abs. measurements was, both theoretically and experimentally, 4%. The error due to an inexact detn. of the temp. was 8-21%. The error due to a change in the chem. compn. in the glass because of evapn. of volatile components was negligible. The results for  $\eta$  of identical glasses, detd. in 4 different laboratories at 900-1500°, differed from one another by 11-28%.

J. J. Bikerman

15-57-1-520

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,  
p 83 (USSR)

AUTHOR: Slavyanskiy, V. T.

TITLE: The Temperature Relations of Viscosity and Structure in  
Some Glass-Forming and Liquid Substances (O tempera-  
turnoy zavisimosti vyzkosti i strukture nekotorykh  
stekloobraznykh i zhidkikh veshchestv)

PERIODICAL: V sb: Stroyeniye stekla. Moscow-Leningrad, AN SSSR,  
1955, pp 251-255.

ABSTRACT: An examination of the temperature relations of vis-  
cosity in several substances, permitting conclusions  
to be formed on the structure of glass-forming  
substances, was made by constructing temperature curves  
of viscosity on functional scale. In this construction,  
the standard temperature curve is represented by a  
straight line inclined at 45° to the axes. A uniform  
temperature scale is placed on the abscissa axis; the  
ordinate axis shows the projection of the temperature

Card 1/2

15-57-1-520

## The Temperature Relations of Viscosity and Structure (Cont.)

curve of viscosity of the standard substance, constructed with the coordinates  $T^{\circ}\text{C}$ - $\eta$  in poises (along the abscissa axis). The projection along the ordinate axis also gives a functional scale of viscosity in poises. For non-standard substances, this method of construction gives curves for the temperature relations of viscosity in the form of straight lines that are inclined at different angles in different parts of the diagram. The graphs thus obtained for viscosities of different silicate and organic glasses--of boron anhydride, lead, and salt melts--show peculiarities determined by differences in their structures. For substances having a slight modification (phenyl salicylate, benzophenol, water, and potassium nitrate), the temperature curve on graphs with a functional scale is represented by two intersecting straight lines. A discontinuity in the curve is explained by a sharp change in the structure of a substance in the liquid state. Graphs for silicate glass show no discontinuities. This may be explained by the insufficient precision in measuring the viscosity or by similar transformations at very high temperatures.

Card 2/2

A. A. L.

SLAVYANSKIY, V. T.

5

Layer formation in a  $\text{Na}_2\text{O}-\text{Na}_2\text{SO}_4-\text{B}_2\text{O}_3$  system at 1200°.  
II. V. T. Slavyanskiy. Zhur. fiz. Khim. 30, 2248-50  
(1956); cf. U.S. 3,01093. Carefully prep'd. mixts. of  
 $\text{Na}_2\text{CO}_3$ ,  $\text{Na}_2\text{SO}_4$ , and  $\text{B}_2\text{O}_3$  were fused in an elec. furnace at  
1200°. Any excess of  $\text{Na}_2\text{SO}_4$  floated on the surface of  
fused glass and crystd. immediately on cooling. The  
vitrified glass was analyzed gravimetrically. The amt. of  
dissolved  $\text{Na}_2\text{SO}_4$  increased at higher  $\text{Na}_2\text{O}$  proportions. The  
results seemed to indicate that a higher  $\text{SO}_4$  proportion is  
permissible in the furnace gas during glass manuf. with a  
high  $\text{Na}_2\text{O}$  and  $\text{B}_2\text{O}_3$  content. W. M. Sternberg

elen

RM fra  
any

SLAVYANSKIY, Viktor Timofeyevich; YEVSTROP'YEVA, K.S., doktor khimicheskikh  
nauk, professor, redaktor; FREYBERG, S.I., zasluzhennyy deyatel'  
nauki i tekhniki, professor, retsenzent; KHOZYAINOV, M.I., inzhener,  
redaktor; SUVOROVA, I.A., izdatel'skiy redaktor; ROZHIN, V.P.,  
tekhnicheskiy redaktor.

[Gases in glass] Gazy v stekle. Pod.red.K.S. Evstrop'eva. Moskva.  
(MIRA 10:4)  
Gos.izd-vo obor.promyshl., 1957. 141 p.  
(Glass)

72-2-3/10

AUTHOR: Slavyanskiy, V. T.

TITLE: Gases in Glass (Gazy v stekle)

PERIODICAL: Steklo i Keramika, 1957, Vol. 14, No. 2, pp. 11-17 (U.S.S.R.)

ABSTRACT: The article expounds the procedure developed by the author for extracting and analyzing gas contained in glass and the results of research of the gas content of certain glasses. Special equipment was set up as per drawing 1. The unit consists of a degassing balloon 1 with a funnel-shaped platinum spiral 2, two traps 3 and 4, a Teller pump 5 and a Pearson absolute manometer 6 (Slavyanskiy in Journal of Technical Physics 1952, No. 4). There is complete insulation from oil, rubber and other substances that might produce gas. The specimen 7 is placed in a glass tube sealed at one end located over the degassing balloon. There is a vacuum in the whole system. Heating to 400° produces the degassing. The spiral is heated to 1200° and a pressure develops. Besides the

Card 1/2

## Gases in Glass

details of the author's procedure, a discussion is presented of the work of other researchers such as Hahner, Voight, Finn, Dalton, Salinier, Louroux, Petit, Kondrashova, Becker, Krasikov, Shattuck and Van Zee. Drawing 2 shows the arrangement of the apparatus. There is a table of pressures of gasses and methods of research and one for extraction of gas showing kinds of glass, temperatures, times, volumes and kinds of gas. The two-page spread shows the research results of the experiments indicated. There is one graph--thermic microgas analysis of a four-component mixture. There are 11 references, of which 4 are Slavic.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 2/2

SLAVYANSKIY, V.T.; NOVIKOVA, M.P.; ISAYEVA, L.V.; KRESTNIKOVA, Ye.N.

Effect of chemical composition on the viscosity of silica glass.  
Opt.-mekh.prom. 25 no.1:53-58 Ja '58. (MIRA 11:7)  
(Glass manufacture)

15 (2)

AUTHORS:

Slavyanskiy, V. T., Krestnikova, Ye. N., Sov/72-59-9-6/16  
Proskuryakov, M. V.

TITLE:

Investigation of Blister Formation During Glass-melting in a  
Vacuum

PERIODICAL:

Steklo i keramika, 1959, Nr 9, pp 25 - 29 (USSR)

ABSTRACT:

It has been established that there are two sources of blister formation in glass: gases which are contained in the pores of the ceramics and show a content of 80-90% nitrogen and 5-10% carbon dioxide and oxygen. These blisters can be reduced by reducing the corrosion and porosity of the refractory materials; the gases contained in the glass mass cannot be established as easily, since the gas composition within the blisters of non-ceramic origin differs considerably from the gases of the glass mass, as can be seen from the paper by V. T. Slavyanskiy (Footnote 1). During the reduction of temperature, oxygen and carbon dioxide are absorbed; the nitrogen, however, remains in the blisters, as established by V. V. Vargin and V. V. Polyak (Footnote 2). The purpose of the present paper was to carry out the qualitative estimation of the gas contents in some optical borosilicate glass types. The melting tests of the glass under

Card 1/2

Investigation of Blister Formation During Glass-melting in a Vacuum

SOV/72-59-9-6/16

vacuum were carried out in a horizontal electrical furnace with a temperature drop of from 1200 to 700°. The furnace temperature was controlled by an automatic electronic potentiometer of the type EPD-17. The design of the furnace is shown in figure 1. The air exhaustion was obtained by a rotary oil pump of the type RVN-20, as can be seen from the scheme (Fig 2). Furthermore, the experiments with the optical glass types TK-10, BK-10, K-8, and F-8 are described in detail. The experimental results are shown in figures 3 to 6. Experiments were carried out in a platinum crucible to determine the influence of stirring up the glass types at 1400 and 1450°. The experimental results are shown in figures 7 and 8. In conclusion, the authors establish that blister formation in molten glass occurs possibly through over-saturation of the glass mass with gases. As shown by the experimental results, pressure variations in the industrial furnaces are of no influence on the blister formation in the glass. Various mechanical influences on the molten glass mass can, however, cause the formation of a great amount of blisters. There are 8 figures and 5 references, 4 of which are Soviet.

Card 2/2

SLAVYANSKAYA V.T.

PAGE 1 OF 17 - L-10706

Vsesoyuznyye nauchno-tekhnicheskiye po-otdeleniyam i sotrudnicim. Leningrad, 1979.

Steklooborudnoye natsional'noye trudy pretyazhnoye sovremennoye sovremennoye Leninskoye 16-20 noy. 1959 (Vitebsk State, Prezidium of the Central Union Conference on the Vitebsk State, Held in Leningrad November 25-26, 1959) Minsk, Izd-vo Akad. SSSR, 1960. 524 p. Errata ally inserted. 5,200 copies printed.

(Series: It's: Trudy)

Sponsoring Agency: Institut Vitebskogo gospromtstva Akademii Nauk SSSR. Vsesoyuznoye khimicheskoye obshchestvo imeni D.I. Mendeleeva i Goschimavenuyy ordona Lenina Opticheskoye institut imeni S.I. Vavilova.

Editorial Board: I.A. Avdeintik, V.P. Butovskiy, N.M. Bezhborodov, O.F. Borovikin, V.V. Mursin, A.G. Vinogradov, K.S. Yevstrop'ev, A.A. Lebedev, M.A. Matveyev, V.S. Molchanov, R.L. Myallier, Ye.A. Porozhnikova, Ginal'skiy, S.A. Tropov, V.A. Plotnikov, A.E. Yakhnidi; Eds. of Publishing House: I.V. Surovov, Tech. Ed.: V.T. Bochever.

PURPOSE: This book is intended for researchers in the science and technology of glasses.

COVERAGE: The book contains the reports and discussions of the Third All-Union Conference on the Vitrocs State, held in Leningrad on November 16-19, 1959. They deal with the methods and results of studying the structure of glasses, the relation between the structure and properties of glasses, the nature of the chemical bond and glass structure, and the crystallography of glass. Purest silica, mechanics of vitrification, optical properties of glass structure, and the electrical properties of glasses are also discussed. A number of the reports deal with the dependence of glass properties on composition, the tinting of glasses and radiation effects, and mechanical, thermal, and chemical properties of glasses. Other papers treat glass semiconductors and acidic borosilicate glasses. The Conference was attended by more than 500 delegates from Soviet and East German scientific organizations. Among the participants in the discussions were N.V. Solntsev, Ye. V. Kavchitskiy, Yu.A. Ganey, V.P. Froyantchikov, Yu. Ye. Golub, O.P. Kheodos'yan, G.P. Mikitenko, S.M. Parcov, A.N. Lazarev, D.I. Levin, A.I. Shatilov, R.M. Ploschchinskaya, A.Ya. Zinov'yev, E.V. Degtyarev, G.V. Byurak'yan, A.A. Katenov, M.H. Skoryakov, P.Ia. Bondi, E.K. Veller, Ya.A. Kukatsev, V.P. Podaryev, R.S. Shevelevich, Z.G. Plisker, and O.S. Polikhanova.

The final session of the Conference was addressed by Professor I.P. Kitaygorodskiy, Honored Scientist and Engineer, Doctor of Technical Sciences. The following Institutes were cited for their contribution to the development of glass science and technology: Sovnaukstroy, Opticheskyye opticheskyye instituty (Grazh. Optich. Institut), Institut chisl. algoritmov Akad. SSSR (Institute of Silicate Chemistry, AS USSR), Fiziko-tehnicheskiy institut Akad. SSSR (Physics Institute AS USSR), Fiziko-tehnicheskiy institut Akad. SSSR (Physicochemical Institute, AS USSR), Institut fiziki i mehaniki Minsk (Institute of Physics, Academy of Sciences, Belorussiya SSR, Minsk), Laboratoriya po Fizicheskoyi Khimii i Silikatam (Institute of General and Inorganic Chemistry, AS USSR), Minsk (Institute of Silicate Chemistry, AS USSR), Khimicheskyy Kabinet Akad. SSSR (Kabinet Nauchnykh SSSR, Minsk), Institut Nauchno-tekhnicheskikh issledovaniy Akad. SSSR (Institute of High Molecular Compounds, AS USSR), Gouardarivenskyy Institut stekla (State Institute for Glass), Gouardarivenskyy Institut stekla (L'vov), Khar'kovskyy poligranichnyy Institut (Khar'kov), Gouardarivenskyy Institut stekla (State Institute for Electrical Glass), Sibir'kiy tritice-technicheskyy Institut, Tomsk (Gibran'skyy Physicochemical Institute, Tomsk), Leningradskyy zondoborudnyy universitet (Leningrad State University), Nekropol'nyy khimicheskyy tehnologicheskyy institut (Doctor Institute of Chemical Technology), Leningradskyy tehnologicheskyy institut (Leningrad Technical Institute), Leningradskyy Institut imeni Lomonosova, Khar'kovskyy poligranichnyy Institut (Khar'kov Polytechnic Institute), Novosibirskyy poligranicheskyy Institut (Novosibirsk Polytechnic Institute), and Sverdlovskyy poligranicheskyy Institut (Sverdlovsk Polytechnic Institute). The Conference was sponsored by the Institute of Silicate Chemistry AS USSR (acting Director - A.G. Golub), the Vsesoyuznoye khimicheskyy obshchestvo im. D.I. Mendeleeva (All-Union Chemical Society imeni D.I. Mendeleeva), and the Gouardarivenskyy Institut opticheskikh institutov imeni S.I. Vavilova (Glute Order of Lenin).

The 15 resolutions of the Conference include recommendations to organize a

Center for the purpose of coordinating the research on glasses, establish new

periodicals under the title "Vitika i khimicheskaya fizika i khimicheskaya chistykh nov."

glas," and to join the International Committee on Glasses. The Conference thanked

A.A. Lebedev, Academician, Professor, and Chairman of the Organization Committee; Ye.I. Petrov-Kochols, Doctor of Physics and Mathematics, Member of the

Organizational Committee, and R.L. Hyndler, Doctor of Chemical Sciences, Member of the Organizational Committee. The editorial board thanks G.M. Burton, M.V. Vol'kenstein, L.I. Demina, D.P. Dolgikh, S.M. Dubrov, V.A. Jofe, and

R.T. Koleval'ya. References accompany individual reports.

SLAVYANSKIY, V. T., Doc Chem Sci -- (diss) "The Viscosity of Molten Optical and Colored Glasses." Leningrad, 1960, 16 pp (State Order of Lenin Optical Institute im S. I. Vavilov), 150 copies, no price given, list of the author's works at the end of text. (KL, 21-60, 118)

SLAVYANSKIY, V.T., KRESTNIKOV, Ye. N., PROSKURYAKOV, M.V.

New method for analyzing gases in glass. Stek. i ker. 17  
no.6:29-33 Je '60. (MIRA 13:6)  
(Glass)

15.2120  
5(4)

AUTHOR: Slavyanskiy, V. T. (Leningrad)

68344  
S/076/60/034/01/022/044  
B010/B014

TITLE: The Nature of the Valence Bond Forces in the Structure of Glass<sup>15</sup>  
and the Role Played by It in the Process of Viscous Flow

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 1, pp 138-143  
(USSR)

ABSTRACT: In this paper the author studied quantitative relations between  
the activation energy of viscosity and the chemical composition  
of glass. The activation energy of viscosity  $E_\eta$  was calculated  
for a number of glasses of various systems by the methods sug-  
gested by R. L. Myuller. Figure 1 illustrates the curves of  
activation energy of the glasses of the  $R_2O - SiO_2$  system ac- ✓  
cording to their composition. They were calculated from the  
equation  $E_\eta = 4.57(B - \lg \frac{1}{\eta})T$ . B is a constant from Ya. Frenkel's  
equation, which is equal to  $\lg \frac{1}{A}$ . Similar calculations were  
carried out for glasses of the following systems:  $PbO - SiO_2$ ,  
 $Na_2O - PbO - SiO_2$ , and  $BaO - B_2O_3 - SiO_2 + 4.2$  mole% of  $Al_2O_3$ .

Card 1/3

The Nature of the Valence Bond Forces in the Structure of Glass and the Role Played by It in the Process of Viscous Flow

68344

S/076/60/034/01/022/044  
B010/B014

ly affected by the exchange of lead for sodium, though it is somewhat lower compared to the activation energy of sodium-silicate glasses. The activation energy of aluminum-barium borosilicate glasses (Alyumobariyevoborosilikatnyye stekla) is considerably higher than in all other glasses. The activation energy of viscosity evidently depends upon the Si-O bond energy as well as on other factors. This is confirmed by the fact that in some cases the calculated and experimental values of constant B are inconsistent (Table 1). K. S. Yevstrop'yev is also mentioned in this paper. There are 2 figures, 4 tables, and 7 references, 5 of which are Soviet. ✓

SUBMITTED: April 22, 1960

Card 3/3